



Rocky Mountain
Remediation Services, L.L.C.
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COPY # 35

PROCEDURE

DRUM PREPARATION FOR CEMENTING WASTE

OPS-PRO.005

REVISION 0

Date Effective: 09/03/97

Page 1 of 5

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Lead 774 Liquid Waste Operations

1.0 PURPOSE

This procedure provides the instructions for preparing setup drums for use in the Building 774 Miscellaneous Aqueous Waste Handling and Solidification Process (Bottlebox).

2.0 SCOPE

This procedure applies to Liquid Waste Operations personnel in Building 774 that prepare setup drums for the bottlebox process.

This revision is designated Revision 0 because it is a new procedure.

3.0 LIMITATIONS AND PRECAUTIONS

- Leather gloves are to be worn to protect hands from metal burrs and pinch points on the drums.
- Hand or forklift truck drum lifters and drum dollies are required to move full drums to avoid personal injury and drum damage.
- Care is to be used when handling a knife to open bags to avoid injury.
- Industrial-Hygiene-approved respiratory protection with high efficiency particulate air (HEPA) canisters are to be worn when handling open bags of Portland cement (Type I/II) or Ramcote 1200 cement.
- Eye showers, safety showers, and fire extinguishers shall be located in the area.
- Refer to the Building 774 Material Safety Data Sheets (MSDS) for specific handling hazards when handling Portland cement (Type I/II) or Ramcote 1200 cement.

ADMIN RECORD

DOCUMENT CLASSIFICATION
REVIEW WAIVER PER
CLASSIFICATION OFFICE

SW-A-002489

- To prevent tripping accidents, all tools and equipment are to be returned after usage.
- To avoid electrical hazards, water is not to contact electrical equipment.
- Alarms shall be responded to in accordance with 1-N02-HSP 18.15, Emergency Alarms and Response.

4.0 PREREQUISITE ACTIONS

Supervisor

- [1] Ensure that a minimum of two Operators, one of which must be qualified, are present during performance of this procedure.
- [2] Ensure that a pre-evolution briefing is performed in accordance with 1-31000-COOP-011, Pre-Evolution Briefing.

NOTE *4-D99-WO-1100 lists the SX Standards for each item, where applicable.*

Operator

- [3] Ensure that the following tools and equipment are available for use:
 - Drum wrench (15/16)
 - Wrench, open-end (15/16)
 - Drum strap
 - File
- [4] Ensure that the following consumables are available for use:
 - Serialized white 55-gal drum
 - Black rigid drum liner
 - 282 lb. of Portland cement (Type I/II)
 - 150 lb. of Ramcote 1200 cement
 - O-ring bag
 - Plastic drum liner bag

5.0 INSTRUCTIONS—DRUM PREPARATION

Operator

- [1] Verify that Section 4, Prerequisite Actions have been completed.

WARNING

Industrial-Hygiene-approved respiratory protection with HEPA canisters are to be worn when handling open bags of Portland cement (Type I/II) or Ramcote-1200 to avoid dusty and caustic exposure.

- [2] **IF** the mixing drum has been properly mixed **AND** a set-up drum is to be prepared,
THEN go to Step 5.[10].
- [3] Obtain an empty mixing drum from the storage area.
- [4] Obtain 282 lb. of Portland cement (Type I/II) and 150 lb. of Ramcote 1200 cement from the storage area on the east dock or chemical storage.
- [5] Empty 282 lb. of Portland cement (Type I/II) and 150 lb. Ramcote 1200 cement into a prepared empty mixing drum.
- [6] Place a lid on the drum, and secure the lid to the drum with a drum locking ring and bolt.
- [7] Place the drum on the drum roller.
- [8] Turn on the drum roller, and allow the drum to roll for a minimum of 30 minutes.
- [9] Turn off the roller, and remove the drum.
- [10] **IF** a set-up drum is needed,
THEN:
- [A] Obtain an empty, serialized white 55 gal. drum from the storage area on the east dock.

- [B] Ensure that the empty, serialized white 55 gal. drum meets the waste container criteria in accordance with 4-D99-WO-1100.
- [C] Obtain a 55-gal drum liner bag and place approximately 1 LB of dry Portland cement mixture (from cement drum) into the bottom of the 55-gal drum liner bag.
- [D] Obtain an O-ring bag and place O-ring bag inside of 55-gal drum liner bag.
- [E] Place approximately 2 LB of dry Portland cement mixture (from cement drum) in the bottom of the O-ring bag.
- [F] Inspect the rigid drum liner rim for sharp edges, and file, as necessary.
- [G] Place a rigid drum liner inside the O-ring bag and 55-gal drum liner bag.
- [H] Place the O-ring bag, 55-gal drum liner bag, and rigid drum liner inside the serialized white 55 gal. drum pulling any excess bag over the outside of the drum.

NOTE *If the drum lift/tilt device is not available, cement may be transferred into the drum by a container at the direction of supervision.*

- [I] Attach an O-ring sleeve to the rolled drum.
- [J] Connect the hoist to the drum lift/tilt device, and attach the drum lift/tilt device to the rolled drum.
- [K] Place the open end of the O-ring sleeve into the rigid liner.
- [L] Use the hoist and drum lift/tilt device to pour the cement mixture into the prepared set-up drum.
- [M] Remove the O-ring sleeve from the set-up drum.
- [N] Tilt the hoisted drum back to the upright position, and lower the empty drum to the floor.

- [O] Remove the drum lift/tilt device from the drum and hoist, and return the drum lift/tilt device to storage.
- [P] Remove the O-ring sleeve.
- [Q] Return the empty mixing drum and O-ring sleeve to approved storage for reuse in preparation of set-up drums.
- [R] Place a Waste/Residue Traveler (RF-47386) and a Radioactive On-Site Transfer Label (RF-46751) with the required information in accordance with 4-D99-WO-1100.
- [S] **IF** the set-up drum is not to be used immediately,
THEN secure and lock the lid, and transfer to approved storage.
- [T] **IF** the set-up drum is to be used immediately,
THEN secure the lid and transfer the set-up drum to Room 210, using a drum dolly.
- [11] **IF** the mixing drum is load and **NOT** to be immediately transferred into a set-up drum,
THEN secure and lock the lid and transfer the mixing drum to approved storage, using a drum dolly.

6.0 POST-PERFORMANCE ACTIVITY

6.1 Disposition

No records are generated by this procedure.

7.0 REFERENCES

1-31000-COOP-011, Pre-Evolution Briefing

1-62200-HSP-7.03, Respiratory Protection

1-N02-HSP 18.15, Emergency Alarms and Response